DROVERS

STATE OF THE BEEF INDUSTRY

2023 REPORT

INSIDE:

- Data Reveals Passion
- 2022 National Beef Quality Audit
- Market Signals
- State of the Beef Industry 2023
- Beef on Dairy Impact
- Capacity Adjustments Will Be Made

FARM JOURNAL

Sponsored By:

agoro CARBON ALLIANCE

NEOGEN

TRUST IN BEEF

Greg Henderson
is the editor of Drovers.
You can contact him at:

editors@farmjournal.com

facebook.com/DroversMagazine

@Greg_Drovers

AgDay

AgriTalk
The Voice of Rural America

Tune in the week of
Sept. 18
for special coverage of the

DROVERS
State of the Beef Industry Report

To watch online, visit
AgWeb.com/AgDay

Find more information and read the whole State of the Beef Industry Report online.

THE FRONT GATE

Data Reveals Passion

America's beef producers are optimistic about the future, and the state of today's beef industry is strong. Those are two highlights from Drovers State of the Industry producer survey conducted this spring and reported in detail in this special section.

Such producer sentiment was a little surprising due to the devastating and historic drought that gripped nearly all of cattle country last year. Yet, two-thirds of respondents call themselves optimistic about the future of the business, and 54% say they will add a family member to their operation within the next five years.

Those data points should be viewed as both the foundation of a strong industry and an indication of the resilience of Drovers readers. As part of our 150th anniversary celebration, Drovers sought to gauge producer attitudes, commitment and management practices. Responses tend to support or confirm findings from other industry projects.

For instance, the 2022 National Beef Quality Audit released earlier this year found three key points regarding producer/consumer symbiosis.

- **Food safety is an expectation, not a purchase criterion with consumers.**
- **The largest improvement since the 2016 audit was in overall efficiency across the beef supply chain.**
- **Companies are striving to increase their sustainability and are working with the entire beef supply chain to achieve improvement.**

> **Drought: 66% say hanging up their spurs was never an option.**

Overwhelmingly, 88% of Drovers survey respondents say they support the industry's sustainability efforts, and most respondents agree or strongly agree current industry challenges will continue to grow in the future. They include: reducing environmental impact, 78%; animal welfare scrutiny, 77%; demand for higher quality carcasses, 73%.

While it is encouraging to see widespread acknowledgment of key issues that might have significant impact on the industry in the long term, possibly the most important revelation from the Drovers survey was producer commitment. It speaks volumes about ranchers and cowboys who, having experienced the second historic drought in a decade, remain committed to their business and their lifestyle.

Despite the myriad stresses caused by the extended drought, just one-tenth of our respondents considered exiting the business, while 66% of respondents said hanging up their spurs was never a consideration.

At Drovers, we share your passion for agriculture and the beef industry. Our 150th Anniversary State of the Industry report is designed to provide a benchmark of information to help you make successful decisions.

Greg Henderson

Greg Henderson, Editor

2022 National Beef Quality Audit

Gains to quality are documented along with areas for improvement identified

BY GREG HENDERSON

Three decades ago, the primary objective of America's cattle and beef producers was to remain competitive with other proteins, especially the poultry industry. That desire spurred the landmark 1991 National Beef Quality Audit (NBQA), which produced some grim realities along with a road map for success.

The results of the first NBQA were too dramatic to ignore, former NCBA vice president of research and industry information Darrell Wilkes said at the time. He called the report the "proverbial 2'x4' between the eyes" telling the industry to implement changes. In short, carcasses were too fat, steaks too tough and blemishes too frequent.

Fast forward to the 2022 NBQA, which delivers many encouraging messages about beef's improvement over the years while identifying issues that need further attention. The audit suggests the industry is producing a high-quality product that consumers want more efficiently and the industry's primary focus across the supply chain remains food safety.

But as consumer demands have evolved, considerations outside of physical attributes have been added, such as sustainability, animal welfare and the connection between producers and consumers. By doing so, the results have been more beneficial to all parties involved.

QUALITY AND EFFICIENCY

"The NBQA is an important tool for the industry to identify where improvements are being made and where there are opportunities to capture more value," says Josh White, senior director of producer education and sustainability for the National Cattlemen's Beef Association. "The good news is, overall, the beef industry is providing a quality product to consumers that they enjoy."

Quality, in fact, has reached levels higher than most thought possible. In the early 1990s, the percentage of carcasses grading Choice and Prime combined was slightly over 50%. In the 2022 audit, that combined percentage was 76% Choice and Prime combined. For several weeks over the past year, USDA market reports suggest that the percentage of Choice and Prime has exceeded 80%.

More than 25,000 carcasses were evaluated at packing and processing facilities to gather data for the NBQA. When comparing NBQAs from 2016 and 2022, the largest improvement was overall increased efficiency across the beef supply chain. And, it was noted, market segments no longer consider food safety as a purchasing criterion, but an expectation.

PHOTO: ROB MATTSON

National Beef Quality Audit

Some Key Findings Include:

- **When comparing 2016 and 2022 NBQAs,** the largest improvement was overall increased efficiency across the beef supply chain.
- **Market sectors indicated** their companies strive to increase their sustainability and work with the entire beef supply chain to do so.
- **The entire industry felt the effects of the COVID-19** pandemic, nonetheless, beef proved to be a choice of consumers, and the industry persevered to provide products.
- **Due to pandemic pressures,** more cattle over 30 months of age were harvested.
- **The beef industry's image improved** within fed cattle market sectors.
- **Foreign materials continue to present a problem,** but the industry is making strides to decrease incidence.
- **There was an increase in usage** of electronic identification (EID).
- **There was an increase in the frequency** of Prime and Choice quality grades, while Select decreased drastically.
- **The industry is improving quality,** but it is accompanied by an increase in carcass weight and fat thickness, as well as large increases in percentages of Yield Grade 4 and 5 carcasses.
- **Nearly 93% of transportation service providers** interviewed were familiar with the Beef Quality Assurance Transportation (BQAT) program and 91% are BQAT certified.
- **Nearly 92% of cattle received a mobility score of 1,** with the animal walking easily and normally. That's a decrease from 97% in 2016 and is attributed to larger cattle and longer transport times.

Areas for Focused Improvement:

- **While increasing** numbers of producers are using technology for recordkeeping and data collection, others among the beef supply chain are concerned animal disease could impact the industry, and current traceability efforts do not provide a robust enough system to combat this potential threat.
- **Carcasses were** discounted for liver abscesses, causing product loss and decreased profitability.
- **Preventative health** strategies must be improved to ensure future effectiveness of antimicrobials.
- **Heat stress** and other environmental factors caused increased bruising, dark cutters and heart issues as well as decreased mobility.
- **Increased bruising** frequency should be addressed through facility and trailer design as well cattle handler training.

PHOTO: CERTIFIED ANGUS BEEF

Eating Quality and Consistency:

- **Numbers of Yield Grade 4 and 5** cattle increased, and improved genetics could maintain the ideal of Yield Grade 3 or better, while maintaining marbling necessary to achieve desired quality grades.
- **Use advancements in genetic selection** technologies to breed for carcasses with increased eating satisfaction, uniformity and desirable end-product specifications.

Market Signals

The smallest herd in 60 years creates a historic market for cattle and calves.

BY NEVIL SPEER

Weather has been the dominating story for the beef industry in recent years. That's resulted in sharp inventory declines for all classes of cattle as 2023 began. The item that gets the most attention (appropriately so) being the Jan. 1 beef cow inventory. Beef producers began the year holding just 28.9 million beef cows, the lowest starting inventory since 1962.

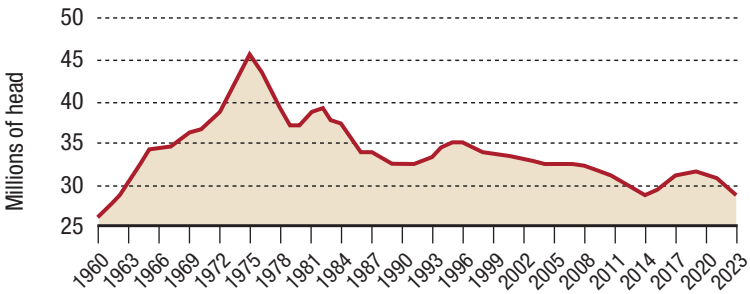
Moreover, given slaughter rates through the first half of the year, it's likely cow producers will take another cut out of those numbers going into 2024. Beef cow slaughter through June represents ~6% of the Jan. 1 starting inventory; that's just a half-percent below last year's pace.

Reluctance to rebuild the cowherd is due to any number of factors. Most notably, forages (hay and pasture) are in short supply. For instance, this year's hay inventory carryover into the current crop year (starting May 1) stands at just 14.5 million tons (and only 2.5% above the previous low established in 2013).

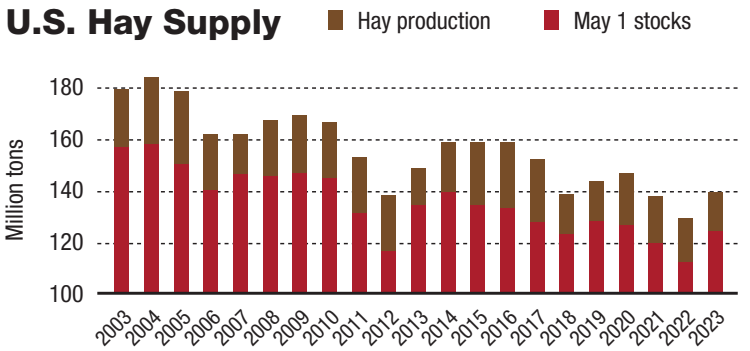
HIGHER COSTS AHEAD

Meanwhile, drought continues. It'll likely require several years of recovery before producers feel confident enough to begin restocking. Simultaneously, high input costs and higher interest rates contribute to incentive to keep selling cows and/or reluctance to retain heifers.

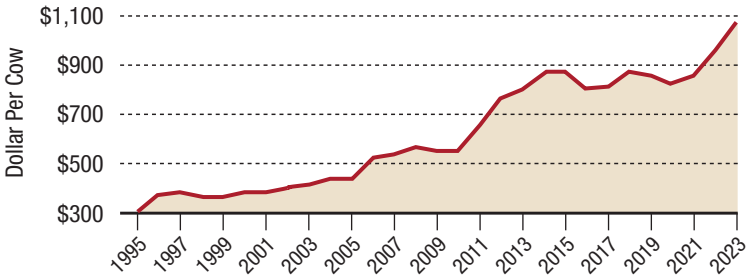
Jan. 1 Beef Cow Inventory



U.S. Hay Supply

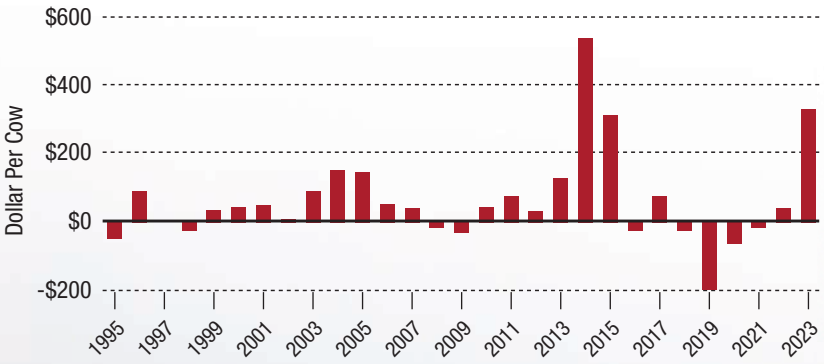


Annual Estimated Average Cow Calf Costs

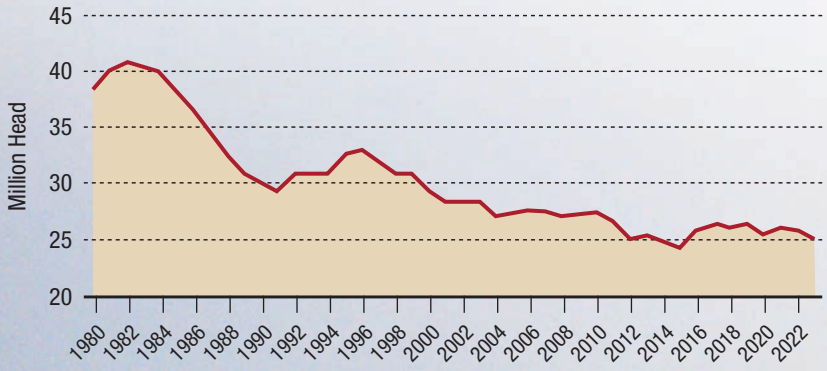


DATA SOURCE: USDA-NASS; PHOTO: WYATT BECHTEL

Annual Estimated Average Cow Calf Returns



Feeder Cattle Supply Outside Feedlots



MARKETS STRENGTHEN

On the flip side of higher expenses are better markets. LMIC forecasts cow-calf producers will be profitable (on average) in 2023 with returns projected in excess of $300 per head. Since 2010, returns have been negative only four out of 14 years with an average annual return of ~$87 per head.

Strength in the feeder market should continue to be underpinned by supply challenges in the calf supply. USDA pegged the Jan. 1 feeder cattle supply outside of feedyards at 25.27 million head. That's the lowest since 2015 and roughly in line with 2014. Despite rising feeding costs (corn, fuel, interest, labor), tightening supply and a favorable string of feedyard closeouts will continue to bolster the feeder market for the foreseeable future.

BEEF DEMAND

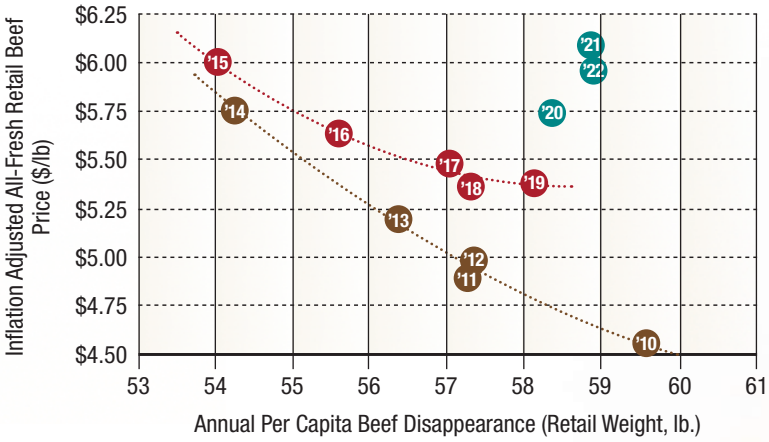
From a consumer standpoint, beef demand continues to be solid. Last year's beef production saw a record (28.22 billion pounds.)

And yet, even in the midst of bigger supply and an economy burdened by ongoing inflation, consumers purchased beef at record retail prices averaging nearly $7.60 per pound. The year-over-year comparisons are especially favorable. Beef consumers are purchasing more product and paying higher prices, all an indication of strengthening demand.

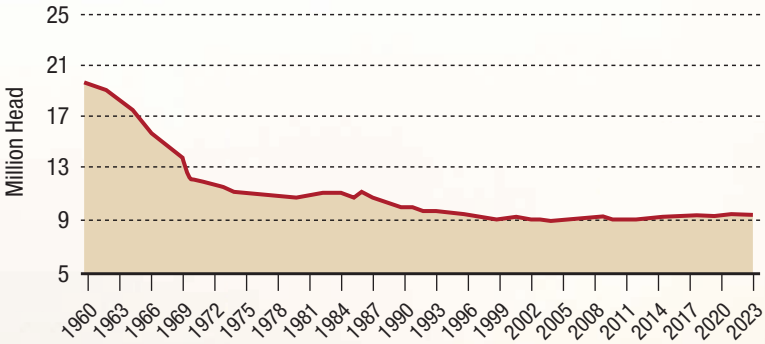
DAIRY CONTRIBUTIONS

Last, the dairy sector is increasingly an important contributor to, and participant of, the beef industry. Beef cross calves are progressively becoming an essential component of beef production, and dairy producers are cognizant of subsequent opportunities on the beef side. While the dairy business continues to consolidate, dairy cow numbers remain surprisingly resilient. The 2023 starting inventory was 9.40 million cows, right in line with the 10-year average (9.35 million head). As such, the dairy herd represents a sizable, reliable and consistent supply of feeder cattle going forward; that's vastly different from dairy-sourced calves that were previously thought to simply be a discounted, after-thought in the marketplace.

All-Fresh Retail Beef Price



Dairy Cow Inventory



DATA SOURCE: USDA-NASS; PHOTO: CERTIFIED ANGUS BEEF

State of the Beef Industry 2023

Results from Drover's State of the Industry survey are significant

BY NEVIL SPEER

The discussion below highlights just several items because of their potential influence on the industry over the long run. They're addressed in no particular order; each one is independently important. But perhaps more significantly, these items ultimately overlap to influence producer decision-making going forward.

SURVEY RESULTS

It's important to note at the outset, the survey results are largely representative of producers fully committed to the business. For example, roughly half of the respondents in the survey generate 75% or more of their income selling weaned calves. Moreover, 40% of respondents indicate cattle to be the primary/sole income source for the operation. At first blush, that might seem low and even contradictory with the previous statement; however, that number well exceeds the national average.

USDA's National Animal Health Monitoring System Beef 2017 survey provides an extensive and comprehensive overview of management practices within the cow/calf sector. Most significant here, the survey categorizes income for respective operations (primary versus secondary). While bigger operations are more likely to designate cattle as a primary source of income, only 15.8% of all operations in the U.S. categorize it as such. (tab 1 graph)

Additionally, the responses regarding preconditioning practices further underscore respondents' commitment to the business. More than 80% indicated they precondition the calf crop prior to marketing. Based on a subjective view of the industry, that number far exceeds industry norms. In other words, survey respondents are actively seeking all opportunities to leverage both their genetic investment and management skills to maximize revenue for the operation.

Income Derived from Cow/Calf Operation

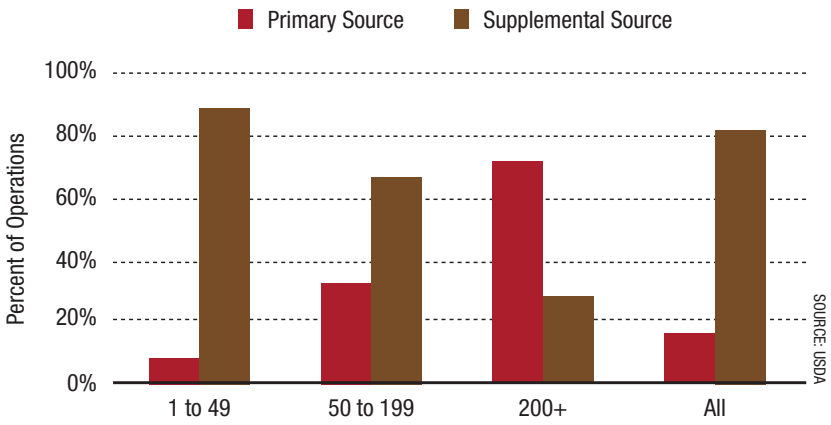
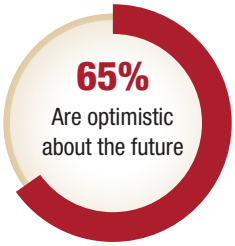
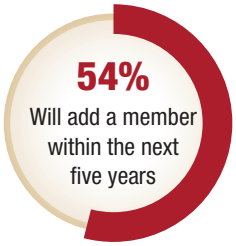
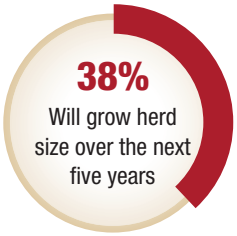


PHOTO: CERTIFIED ANGUS BEEF

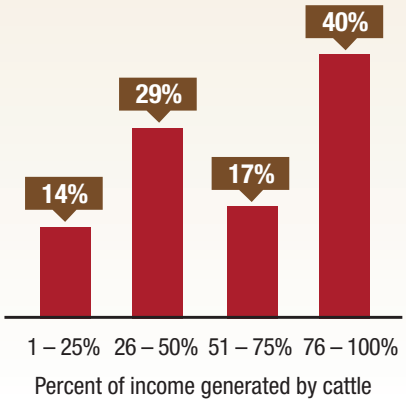
The Big Picture



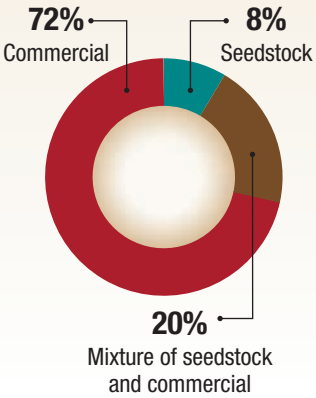




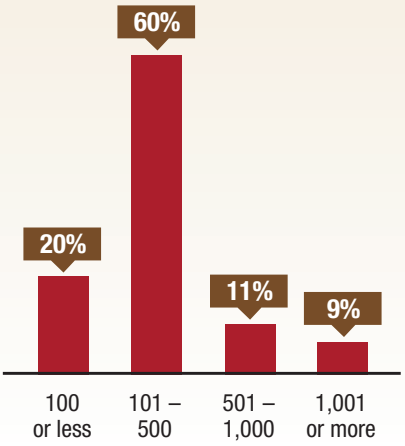
What percentage of your total operation's income is generated by cattle?



Which of the following best describes your cattle operation?



How many head of beef cattle are in your total herd?



WEATHER

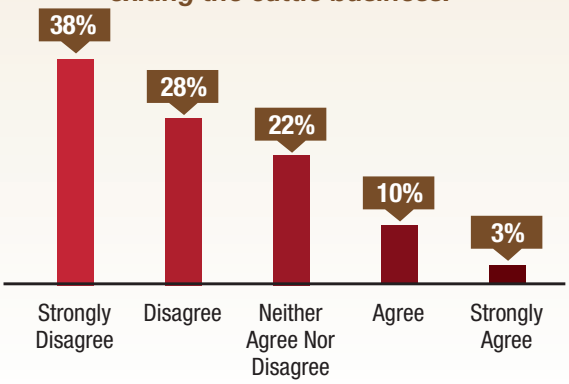
No discussion about farming and ranching can occur without some mention of weather. During the past 10 years, cow/calf producers have endured two major rounds of drought and subsequent selloff of the cowherd. The outcome being the smallest beef cow inventory going into 2023 since the early-1960s.

What happens next? Just one-third of operations that downsized in recent years due to drought intend to restock this year. In other words, survey respondents are carefully evaluating their options and seemingly aren't in any rush to restock anytime soon. Rebuilding the cowherd will take time, implying this cycle will likely be of longer duration versus the previous inventory lows in 2014. That assessment was confirmed by USDA's July 1 cattle inventory report; producers are neither keeping back cows nor retaining additional heifers to grow the cowherd.

That's not surprising. Producers need time to replenish pastures, ponds and hay inventories. To that end, the percentage of range and pasture rated as poor or very poor is on pace with the five-year average. That reality can be viewed both ways: it's no worse versus previous years, but it's no better either.

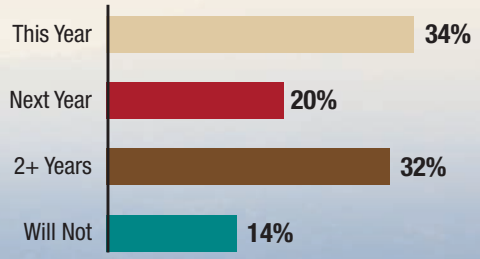
Read the following statement and indicate the extent to which you agree with it:

"Due to the drought, I seriously considered exiting the cattle business."



Of the 44% who reported reducing their breeding herd because of drought:

When do you anticipate taking restocking measures?



UPTAKE IS LOW FOR RISK-MITIGATING INSURANCE:

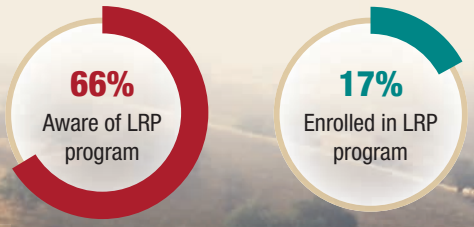


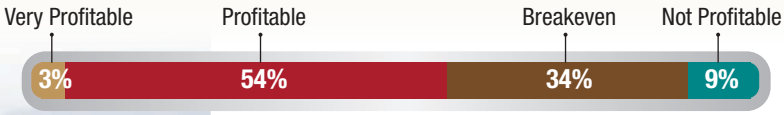
PHOTO: KATIE ROBERTI

PROFITABILITY/SUCCESS

Survey results reveal a bullish outlook on the business. First, nearly two-thirds of respondents indicate they're optimistic about the future. And second, despite market challenges in recent years (especially through COVID-19), less than 10% indicate their business operated at a loss during the previous five years. And given 2023's market strength to date, it's likely if the survey were taken today, such optimism likely would be even higher.

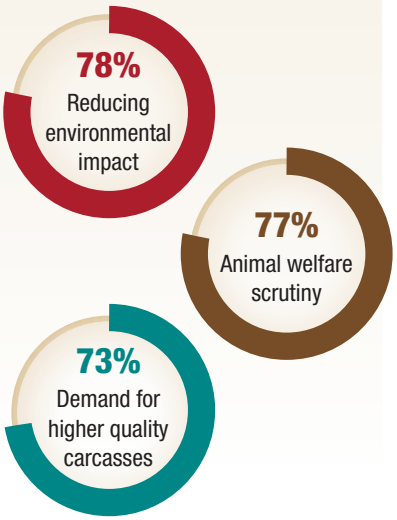
The combination of respondents' optimism and profitability leads to a third aspect of significance: plans to expand the operation. In terms of growth, 54% indicate plans to add an additional person to the operation while 38% expect to expand their herd in the next five years. In other words, as alluded to above, growth and expansion are in the cards; it's just likely to be drawn out.

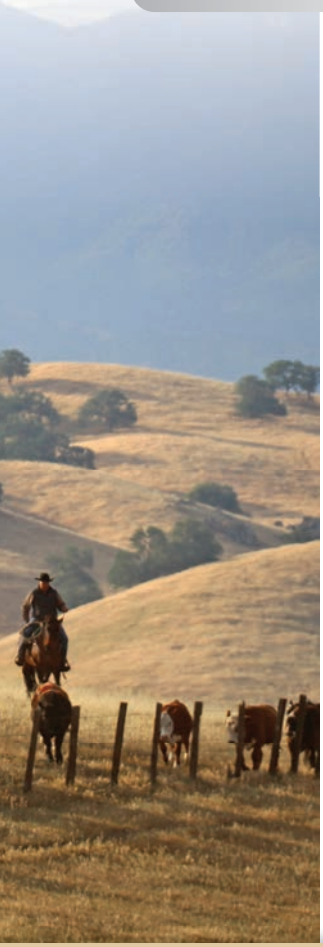
Thinking about performance of your individual cattle operation over the past five years, which of the following best describes your overall profitability?



INCREASED CHALLENGES ANTICIPATED

Most operators agree or strongly agree current industry challenges will continue to grow in the future. These include:



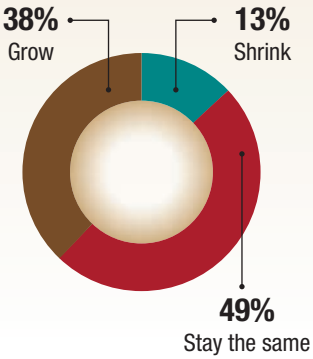


HERD EXPANSION AND FAMILY INTEGRATION

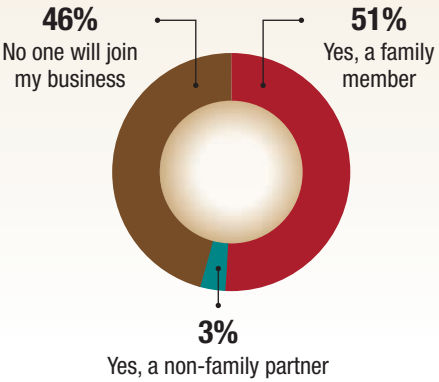
Perhaps the most indicative question of long-term commitment and optimism about the business revolves around plans to add a family member. Regardless of profitability, roughly half of all respondents indicate they plan to add an additional family member in next five years.

CONSIDERING YOUR INDIVIDUAL CATTLE OPERATION, OVER THE NEXT FIVE YEARS:

Do you anticipate your cattle operation's herd size will grow, shrink or stay the same?



Do you expect a family member or partner to join your business?



COMPLEXITY

Ultimately, the beef industry's success will be underpinned by how well it navigates the respective priorities of consumers and the inevitable shifts in the marketplace over time. The survey asked about four different aspects related to consumer pressure and expectations for change in the future: environmental impact, animal welfare, sustainable practices and desire of high-quality beef, respectively. In every instance, a majority of producers either agreed or strongly agreed each of those items will be increasingly important in the years to come.

The survey report summarizes it succinctly: "Operators foresee acceleration of challenges they face today, mostly related to consumer attitudes and activist efforts that are largely outside their control. Most beef producers expect increased pressure to be sustainable, care for the environment and elevate animal welfare while producing higher quality carcasses."

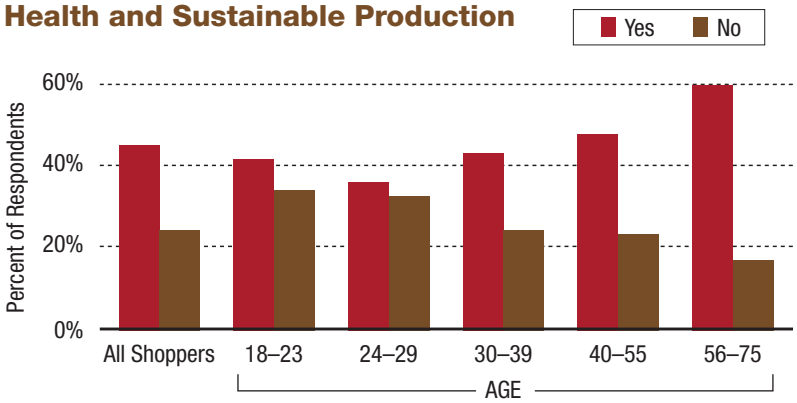
That's especially true as millennials (many of whom consider themselves to be Flexitarians) obtain wealth and increasingly become the most influential consumer cohort for the beef industry, and the importance of being responsive to their concerns is best illustrated by 2023's Power of Meat study.

For example, when asked if, "Meat/Poultry Brands are Committed to Planet Health and Sustainable Production" nearly one-third (32%) of younger millennials (24 to 29 years of age) respond in the negative fashion — nearly twice the rate (17%) of Boomers (56 to 75 years old). The same pattern exists (32% and 16%, respectively) when asked if, "Animal Welfare for Livestock Raised in the U.S. is Good [Sufficient/Satisfactory.]" Younger consumers tend to have higher rates of negative views of animal agriculture versus their older cohorts.

The marketplace will become more complex in the years to come. Accordingly, in response to those pressures, producers will need to be increasingly cognizant of the importance of eating quality coupled with planet health and animal welfare.

2023 Power of Meat Study:

Meat/Poultry Brands Are Committed to Planet Health and Sustainable Production



Animal Welfare for Livestock Raised in the U.S. is Good

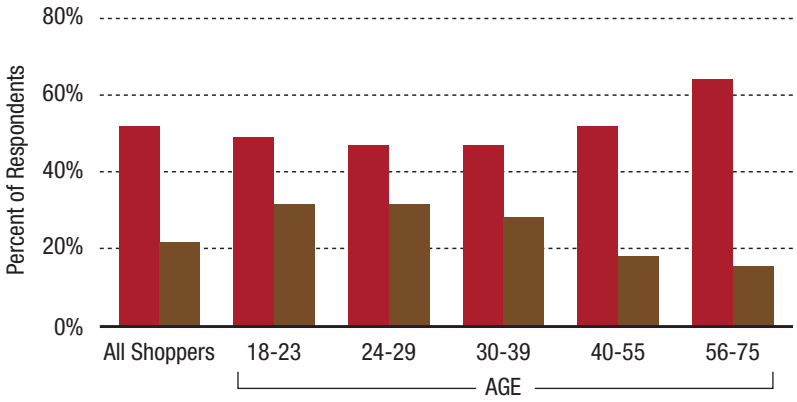
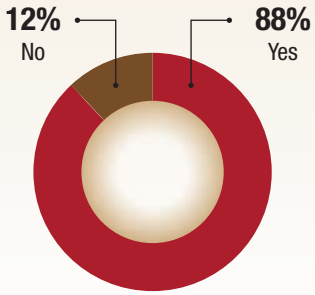
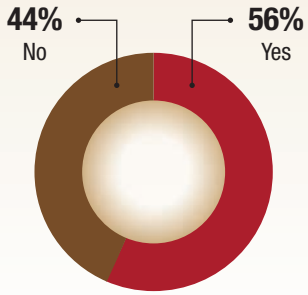


PHOTO: WYATT BECHTEL

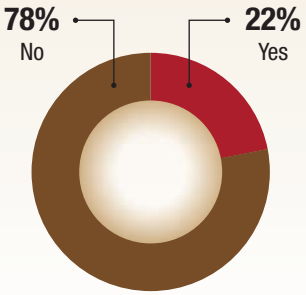
Do you support the beef industry's sustainability public information efforts?



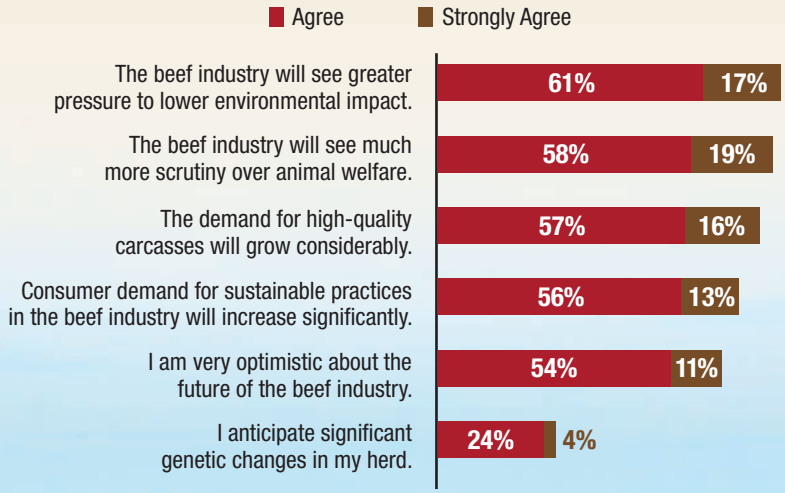
Do you believe an industrywide traceability system is needed?



Do you currently use RFID identification for your herd?



Read each of the following statements and indicate the extent to which you agree with each using the rating scale provided. Over the next five years:



CONCLUSION

Going back to the beginning, as noted previously, survey respondents are actively seeking opportunities to leverage their skills and capabilities to maximize revenue for their operations. Furthermore, they also envision even more complexity coming to the marketplace. And given their current state of mind regarding the business (growth and optimism), it's fair to say Drover's respondents are highly likely to eagerly anticipate that complexity as yet another venue of opportunity.

Find more information and read the whole State of the Beef Industry Report online.

Beef X Dairy Advances

Rapidly growing beef-on-dairy segment holds promise for all stakeholders

BY GREG HENDERSON

Beef-on-dairy is arguably the most significant advancement for the U.S. beef industry in a generation, and no current review of the State of the Beef Industry would be complete without examining its impact.

Further, the recent growth of beef-on-dairy has been significant enough that it could alter the cyclical impact the beef industry is experiencing from drought-forced herd reductions. For instance, Patrick Linnell says CattleFax estimates the industry will produce 2.92 million beef-on-dairy calves this year and 3.22 million in 2024 (see chart). Some industry observers believe those estimates are conservative.

Regardless of the exact number, Dale Woerner, animal and food science professor at Texas Tech University, told Drovers, "The number will continue to grow as the beef cowherd shrinks."

That's due, primarily, to the growing acceptance of beef-on-dairy calves by both cattle feeders and beef packers, and the realities of empty pens and shackle space the industry faces over the next few years.

PHOTO: JARED WAREHAM

TARGETED BREEDING

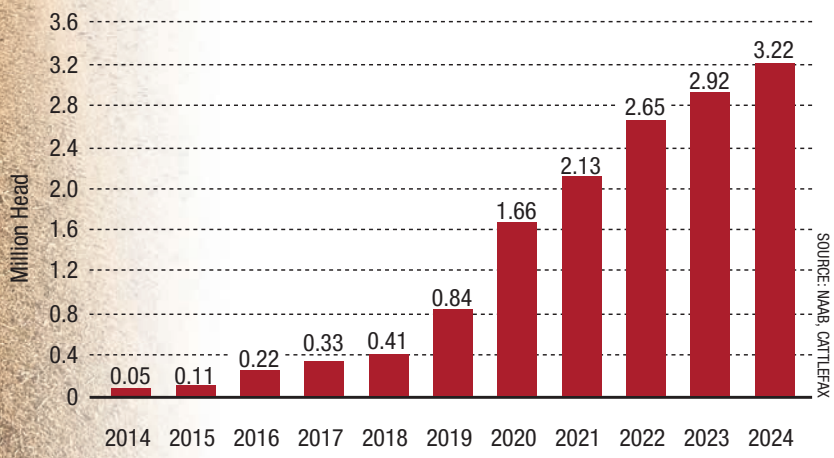
"Right now, everybody needs cattle," says Jared Wareham, North America NuEra business development manager at Genus ABS. "The beef-on-dairy crosses, especially the good ones, are in high demand."

When the beef-on-dairy segment first began to develop a few years ago there was little attention given to the genetics of the beef semen used because it was assumed the result would produce a more valuable calf. That was true, but Wareham says that shotgun approach has given way to much more targeted breeding.

"We saw good crossbreds and bad ones, and nobody wants bad ones," Wareham says of the early efforts to implement beef-on-dairy. "But the focus on creating the good ones continues to rise, and now we have enough feedlot performance and carcass data to make more of the good ones."

But the rise in beef-on-dairy is also influenced by the modern dairy production system. Today's dairy industry, with a relatively stable cowherd

Estimated Beef x Dairy Calf Crop *(based on semen sales)*



of 9.3 million to 9.4 million highly efficient cows, operates under an intense genetic selection system to identify the most productive dairy heifers. The development of sexed semen has become a common tool used to further those efforts and sexed semen allows dairy producers to produce optimal replacement heifers from their best dairy cows with the genetically inferior cows available for breeding to beef sires.

In other words, sexed semen helps reduce the number of dairy cows needed to produce dairy heifers, thus allowing more dairy cows available for breeding to beef sires. That advancement has led to a dramatic decrease in the use of dairy semen and a corresponding increase in the use of beef semen. In fact, the use of beef semen has nearly tripled since 2017.

ADVANCING SUSTAINABILITY

At the outset, cattle feeders knew a beef-on-dairy cross would grow faster, be more tolerant of extreme weather conditions and produce a beefier carcass than traditional dairy calves, but that's a low bar for today's beef industry, and many feedlots and packers are adjusting their sights much higher.

"At first everybody saw beef-on-dairy as a way to create a dual-stream production system for milk and beef," Wareham says. "In the beginning, breeding those dairy cows was just a stab in the dark. We used Angus genetics, but now we're seeing a number of composite sires designed specifically for beef-on-dairy be quite successful."

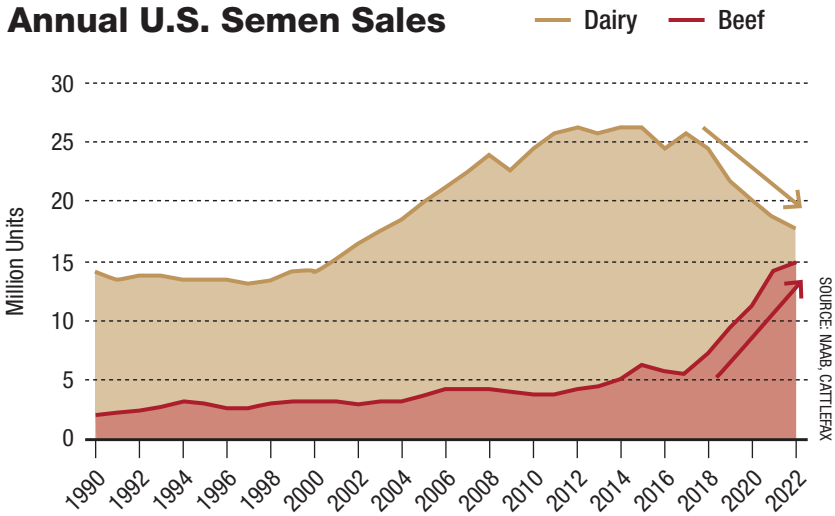
Packers and retailers also have a favorable view of the beef-on-dairy segment. For instance, a research project by Woerner and colleagues found strip loin steaks from beef-on-dairy cattle have improved color and shelf-life performance, as well as improved steak shape compared with traditional, straightbred dairy cattle. On average, the research found beef-on-dairy cattle produce carcasses with greater red meat yield than conventional Holstein steers, and high-yielding beef-on-dairy cattle can yield as high or higher than conventional beef cattle.

Woerner and his colleagues at Texas Tech have also collaborated with Cargill for over three years on the Dairy Beef Accelerator, a program to better understand the opportunities of beef-on-dairy. That research has documented several benefits for producers, packers, consumers and the environment. Some highlights:

- **Compared to purebred dairy calves,** beef-on-dairy calves can provide higher-quality beef products without impacting current milk production efficiencies.
- **Beef-on-dairy calves show greater feed efficiency,** which lowers the environmental footprint from their production.
- **Increased feed efficiency significantly reduces** greenhouse gas (GHG) emissions.
- **The practice benefits meat quality.** Beef-on-dairy delivers increased volumes of higher-grading beef carcasses, providing feedyard operators more access to value-based marketing opportunities.

"The beef and dairy industries can to work together to produce even more efficient beef animals," Woerner says. "Crossbreeding dairy cows to complementary beef sires can advance sustainability by reducing the environmental impact and improving profitability."

Annual U.S. Semen Sales



John Nalivka is the president of Sterling Marketing Inc., Vale, Ore., and provides the weekly Sterling Beef Profit Tracker on *Drovers.com*. You can contact him at:

jnalivka@fmtc.com

www.sterlingmarketinginc.com

(541) 473-3266

COMMENTARY

Capacity Adjustments Will Be Made

The state of the U.S. beef industry in 2023 is strong. Drought-induced herd liquidation impacted the supply side, but an even greater impact occurred on the demand side.

U.S. consumers have shown a willingness to pay higher prices for beef which is key to market sustainability. As beef producers have improved their product over the past two decades, consumers have come to expect quality, consistency and safety, the three attributes supporting strong beef demand.

STRUCTURAL CHANGE

With the U.S. in an inflationary economic environment, consumer budgets might tighten. Even so, the beef industry is in a much better position today and that has not always been the case. While I believe beef demand has yet to be fully tested at these higher prices, the evidence supports the factors mentioned above that brought us to this point have had a greater impact than in the past.

While demand is strong, we must recognize supply and structural issues that will have a significant impact going forward. For instance, contrary to popular belief, the industry does not lack harvest capacity. Capacity use is a key economic factor that impacts margins and will be a factor driving distinct structural change through decisions made within individual firms (packers).

Utilization of slaughter capacity in fed beef plants averaged 81% across the industry in 2014/15. As cattle numbers increased, that figure rose to 88% from 2016 to 2022. Through July 2023, utilization averaged 85%, and with continued reduced fed cattle numbers in 2024, the figure will drop to 80% against current capacity. Cow plants averaged 92% utilization from 2016 to 2022 as herds were built and then liquidated due to drought. Through July 2023, that figure has fallen to 81% and could fall to 65% in 2024. There will be adjustments, with decisions directed toward managing and aligning slaughter capacity with value-added, case-ready products.

The production of case-ready products by packers has become the rule rather than the exception, and for good reason: margins and customer demand, both in retail and food service. Cattle producers must maintain their focus toward producing and marketing cattle — not selling, but marketing cattle — that meet the demand for beef in U.S. and global markets. This will be achieved through genetic improvement. The goal is for cattle producers to realize their share of the value chain through producing the right cattle for the right market, and 2023 is the starting point.

> **Capacity utilization is a key factor impacting margins and will drive distinct structural change.** —*John Nalivka*